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TITLE: DEVICE FOR STARTING METHANOL FUEL CELL

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INVENTOR-INFORMATION:

NAME

NAKAMURA, MASASHI

ASSIGNEE-INFORMATION:

NAME

COUNTRY

NISSAN MOTOR CO LTD

N/A

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ABSTRACT:

PURPOSE: To make the surface of a fuel electrode to be subjected to catalytic burning, and thus shorten the warming-up time of a fuel cell by providing an air bypath, and supplying fuel added with air to the surface of the fuel electrode for a given period during the time when battery operation is started.

CONSTITUTION: The fuel-chamber side surfaces of supports 6 and 7, which are made of a porous conductive material, are coated with a platinum-system alloy, thus a fuel electrode 2 and an air electrode 3 being made. The fuel electrode 2 works as a fuel-oxidizing catalyst. A fuel chamber, which is divided into a fuel-electrode side chamber 11 and an air-electrode side chamber 12 by means of a separator 10, is filled with an electrolyte. Air (oxygen) is supplied from a blower 17 through an air path 16 into an air chamber 5, which is adjacent to the air-electrode side chamber 12 with the support 7 placed between them. The air path 16 is connected to a fuel path 13 by means of a bypath 18. In starting the battery operation, a fuel-supplying pump 15 is driven and a bypath valve 19 is opened, before air and methanol as a fuel are supplied into



the fuel-electrode side chamber 11.

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